DOCUMENT RESUME

ED 189 919 HE 012 817

AUTHOR Foster, S. F.: Nelson, J. G.
TITLE Problems and Issues in Offering University Teaching Improvement Courses: Analyses and Suggestions. Report No. 4.
INSTITUTION British Columbia Univ., Vancouver. Faculty of Education.
PUB DATE May 79
NOTE 30p.

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *College Faculty: Curriculum Development: Demonstrations (Educational): Educational Quality: *Faculty Development: Graduate Study: Higher Education: Instructional Improvement: Methods Courses: Skill Development: *Teacher Education Programs: Teacher Effectiveness: *Teacher Improvement: Teacher Motivation: Teaching Guides: Teaching Styles

ABSTRACT

The rationale for providing university teaching improvement courses is documented and explained. Although graduate students in modern universities are typically well prepared to criticize, formulate, and conduct high level research projects in their respective disciplines, no parallel training in critiquing, formulating, and carrying out teaching activities exists in many institutions. Among alternative formats for offering teacher training are short course or intensive course format, weekend retreat, periodic workshop focusing on specific teaching skills, a full-year course for extensive training leading to some sort of certificate in teaching higher education, and individual consultation. Content and organization issues in teaching improvement courses are reviewed, as are motivational problems of potential participants. Rather than designating a "master" teacher to instruct teaching skills to professors, it is strongly suggested that a variety of personnel be involved in offering teaching improvement courses. Many research questions and issues remain to be explored in the field of teaching improvement, including satisfactory philosophical definitions of teaching and good teaching. References and teaching improvement syllabi are appended. (DC)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED189919

Problems and Issues in Offering University Teaching Improvement Courses: Analyses and Suggestions

S. F. Foster and J. G. Nelson
The University of British Columbia, Canada

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Univ of British Columbia
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Report #4
May, 1979

HE 012 817

Preface

During the fall of 1977, the coordinators of CITE decided, in conversations with psychology professor Frank Costin of the University of Illinois, that it would be fitting to organize a symposium on innovations in teaching psychology. This seemed especially pertinent in view of the fact that the 1978 annual meetings of the American Psychological Association were scheduled to be held in Toronto.

We set out to locate the most relevant work being done by psychologists in Canada and the U.S.A. on the subject and came up with the symposium outlined below.

Symposium: Implementing Teaching Improvement Strategies in Psychology: Concepts, Practices, and Problems

Donnah Canavan-Gumpert, Boston College. Social Structure and Productivity in the University

Janet G. Donald, Centre for Learning and Development, McGill University, Montreal, Quebec, Canada. Search for Teaching Competencies in Higher Education

Stephen F. Foster and J. Gordon Nelson, Faculty of Education, The University of British Columbia, Vancouver, Canada. Problems and Issues in Offering University Teaching Improvement Courses

Robert J. Menges, Center for the Teaching Professions, Northwestern University. Raising Consciousness about Teaching: New Use for Videotape

Michael Orme, Ontario Institute for Studies in Education, Toronto, Canada. Videotape Feedback on Special Teaching Techniques: Two Studies

Freda Rebelsky, Boston University. Intimacy and Learning: Teacher as Person

Discussant: Frank Costin, University of Illinois at Urbana-Champaign

The symposium was well-attended and received, and CITE is pleased to reprint here the paper prepared by the UBC team (Foster and Nelson) for that symposium.

Abstracts of the other symposium papers are available from the authors. It should be noted that due to family illness, Dr. Freda Rebelsky's paper was not presented and the paper by Dr. Peter Gumpert was substituted.

Stephen F. Foster and J. Gordon Nelson
Vancouver, B.C.

May, 1979

Problems and Issues in Offering University Teaching Improvement Courses: Analyses and Suggestions

Table 1 lists in outline form the problems and issues that have been identified for analysis. The following remarks are addressed to key points on this list.

I. Rationale for a Course

Arguments against conducting teaching improvement activities should be discussed early in any statement of rationale for teacher training in higher education. The first argument runs something like this. Improvement is a notion related to the liberal idea of infinite perfectibility of humankind and thus rests upon false premises. Absolute perfection cannot be attained, so improvement is a futile endeavour, misleading at best. This objection is faulty. To justify a notion of incremental improvement, one must hold two concepts, one scientific, the other conceptual, but neither implying an absolute standard of perfection. The scientific idea is that change is inevitable; that is, that nature abhors stasis. The philosophical idea is that humans can be actors. Through volition or conscious intent, people can influence the outcomes of change.

A second argument may be more telling. Psychological theory and educational practice suggest that a number of factors other than teaching quality determine educational outcomes. Among these factors are prior student achievement, student ability, aptitude, motivation, social and cultural factors (e.g., belief in the value of learning). All operate together with institutional selection factors to cause student achievement quite apart from an instructor's teaching skills. A highly motivated

student with access to a good library, computers, or a laboratory, can discover and learn through self-study. Moreover, informal groupings of students interested in common problems combined with the other factors noted above in catalytic social learning fashion may accomplish learning through heuristic insights that no lecture could produce. What is a teacher to do? Does or can teaching quality make a difference? Under what conditions may teaching improvement activities be justified, given the evidence supporting these and related arguments?

J. B. Carroll's (1963) analysis of factors contributing to classroom learning includes the characteristics students bring with them to any learning task as exemplified above. The model also provides, however, for factors more directly under the control of teachers. Moreover, teachers, by taking into account student aptitude and motivational differences, can structure the learning environment in ways that can facilitate or impede actual student progress. Thus it seems fair to conclude that while the majority of variance in student achievement may be caused by factors existing prior to contact with a particular teacher, good teaching perhaps can make a difference. An added reason for improving the quality of one's teaching is, of course, the notion of self-improvement: individuals strive to do what they do well, and to learn from experience to improve their performance on later occasions.

What then is a rationale for offering a course in university teacher training? Among the major functions of a modern university are teaching and research. Graduate students in a modern university are typically well prepared to criticize, formulate, and conduct high level research projects in their area of specialization. Unfortunately, no parallel training in

critiquing, formulating, and carrying out teaching activities exists at many institutions despite the fact that students with advanced degrees are frequently preparing for careers as university faculty members whose responsibilities will include both teaching and research. Some institutions, of course, provide teaching assistantships, but these are typically minimally supervised. A few universities have begun to provide institutional support for teaching improvement activities. In the United Kingdom, universities now commonly offer "induction courses" for new faculty members. Some universities offer courses or workshops for existing full-time faculty members such as the "ManUTeach" program at the University of Manitoba, Canada. Others offer seminars for graduate credit in teaching a particular discipline. An example of this is the pioneering work of Frank Costin in the Psychology Department at the University of Illinois.

The University of British Columbia has offered over the past six years a graduate course in teaching development and improvement, Education 506, College and University Teaching. The course meets three hours a week, for a 13-week term and may be attended by graduate students who enroll for credit or by faculty members who take the course as active auditors. It is thus attended by a mixture of three groups: graduate students, beginning faculty members, and experienced faculty members. Approximately 85 participants have completed the UBC course and enrollments are relatively stable at 10-20 participants per year.

Among alternative formats for offering teacher training are short course or intensive course format, weekend retreat, periodic workshop focusing upon specific teaching skills, a full year course for extensive training leading to some sort of diploma or degree in teaching higher

education, and individual consultation. Based upon experience in offering teaching improvement training in several of these modes, I feel that the one shot or two-day intensive workshop is unlikely to result in important behavior change for many participants. The weekend retreat has the advantage of removing participants from their regular environment and thus removing distractions. It also provides possibilities for relaxing and satisfying experiences that may serve to reinforce the skills learned. Of course, it also involves greater expense than short, on-site workshops. Individual consultation, while not efficient in terms of the time involved, can be effective, according to research reported by Centra (1973). In his study, one group of instructors received data from student evaluations of their teaching, while another group of instructors received data from student evaluations along with specific consultation on how to use those data. Teaching improvement occurred only in the group having feedback plus consultation. This finding suggests that individual consultation can be an effective method for teaching improvement.

Preliminary evaluation of the course offered at UBC has been reported by the author (Foster, 1976). Briefly, these results show marked positive changes in self-evaluation of participants responding to specific questions concerning the use of particular teaching and evaluation strategies. A more comprehensive evaluation is under way.

An objection commonly raised in discussing teaching improvement courses for university instruction is our inability to identify a completely satisfactory definition of teaching, and in particular, good teaching. The philosopher Harry Broudy (1974) provides some guidance in this area, although the complete definition of good teaching has eluded philosophers

since Aristotelian times.

Broudy characterizes teaching as activity falling along one or more of three dimensions. The didactic dimension includes activity oriented to information transmission. The lecture method is probably the most characteristic didactic approach, although information transmission in teaching takes place in a variety of ways including writing textbooks. The second dimension identified by Broudy is heuristics. Heuristic methodology involves causing students to organize what they already know and apply it to solve problems. This approach to teaching, characterized by the Socratic method, frequently involves small group discussions or group work in problem solving teams. A third aspect of teaching identified by Broudy is phyletics. Phyletic teaching appeals to affective objectives. It causes students to love the subject matter, and to love themselves as students of it (and perhaps in the ancient Greek tradition, to love their teacher as well!). Phyletic teaching, however, has a high degree of internalization. The subject matter is not learned by rote, nor is it learned for the pragmatic purpose of solving immediate problems, but rather it is learned for the sake of learning. This tripartite characterization of teaching is inclusive enough to help make sense out of a variety of research investigations in teaching. It is also specific enough to begin to make some prescriptions about teaching improvement. For example, Broudy suggests that a good teacher is probably one who finds that either didactics, heuristics, or phyletics suits his or her personality and situation, and has developed skills in that particular area. We all know good lecturers, good discussion leaders, and inspiring teachers. The suggestion for improvement is to identify the area that suits your

style and try to improve on your ability to do that. According to Broudy, a master teacher is one who is good at all three areas. The master teacher knows when to use each one to achieve optimal learning. The master teacher knows when to switch from one to the other and how to combine them in an effective manner. The move from being a good teacher to becoming a master teacher involves branching out. One who is already a good lecturer should acquire new skills in heuristics and perhaps phyletics. Given this analysis, what can we make of attempts to improve college and university teaching?

We have seen that simple questions such as, "Are lectures better than discussions?" "Are films better than textbooks?" "Is programmed instruction any good?" are really too simple to be meaningful in all but the most circumscribed of situations. Similarly, the question, "Should a teacher training course be theoretical or practical?" begs a much more important question. What we seek is a way to optimize student learning through the skillful use of the variety of available instructional resources.

II. Content and Organization Issues

Smith (1976), from a survey of faculty development offices in United States universities, has identified three broad approaches to faculty improvements. One involves personal improvement. This includes a teacher's increasing his or her knowledge of subject matter, communication skills, or personal self-concept. A second activity is organizational. This involves a teacher's ability to state instructional objectives, to structure and sequence a course, and to come up with appropriate feedback for students and evaluation activities. A third area is institutional.

This has to do with the physical and social support services, and the climate for learning. It includes architectural and administrative concerns. Unfortunately, the approach taken at a given university campus depends less on the real needs of the faculty members than on the skills and orientations of the support personnel available for faculty development.

At UBC, we have combined personal and organizational foci in a mix of theoretical and practical orientations. The Education 506 course is designed to include 1/3 theoretical and about 2/3 practical skills. Even with this mix, it is difficult to do justice to the needs of all participants in the thirteen-week period. Thus, each participant is required to complete three projects concerned with teaching improvement, but not all participants do the same projects. A menu of teaching improvement activities is provided early in the course (Table 2) and each participant is encouraged to select from this list the three things he or she judges to be most appropriate to improving his own teaching. The two times the course was offered, all options were equally available to each participant. By unanimous request of participants in the first two seminars, however, the project of videotaping a 15 to 25 minute simulated lesson taught within the seminar was made a requirement for the course. Now all participants do that, selecting their other two projects from the list as they choose.

Many topics could be emphasized in a course on college and university teaching improvement. Among these are learning theory, instructional models, motivation theory, specific teaching methods, evaluation and measurement techniques, public speaking skills, speech correction, instructional technology and media use and development, human relations training,

various techniques of instructional research, findings of instructional research, activities concerned with developing a new course, professional and teaching ethics issues, how to apply for a teaching position, how to apply for a promotion, the history of higher education, philosophical issues in higher education, political and sociological issues including unionization and campus unrest, and many more. Thus a process of sifting and winnowing must take place between those who offer the course and those who take it to come up with appropriate subject matter for the needs of the participants. Table 3 lists the topics included in the UBC course.

Clearly, from simply inspecting the list of topics just cited, it would be possible to construct an entire sequence of courses for teacher training in higher education which in some ways parallels the sequence of courses in teacher training offered to those planning to teach in elementary and secondary schools. This has been done in England at the University of Surrey, but not yet in Canada.

III. Motivational Problems of (Potential) Participants

Many issues concerning participant motivation can be identified. Among these is the widespread observation that people who most need teaching improvement are least likely to attend the course or participate in other formal teaching improvement activities. This observation causes some to argue that courses should be required, not optional. In fact, as indicated above, in England, universities and polytechnics require new faculty to complete a short course in teaching improvement. As we know from experience, requiring people to do something frequently has a negative effect on their motivation. They are there not because they want to be

but because they have been told they must be. Since, in modern large universities, extensive direct contact with a large number of faculty members in any one year is not possible, a more sensible approach is to set up a permanent office of instructional improvement. Such an office would be available to faculty members for consultation on a voluntary basis at any time through the year, and provide regular courses, short courses, workshops, evaluation systems, and a variety of other teaching improvement activities. In Canada, a prototype model for this is the Centre for Learning and Development (CLD) at McGill University. CLD was set up in 1969 and is probably the largest and best known of such activities in Canada (and among the largest in North America) today.

A related motivational problem has to do with the proportion of participants who start the course but drop out before completing it. Many of these drop-outs report conflict with more important activities, the course not meeting their needs, or the belief that they will not earn highest marks and thus possess a record showing that they did less than extremely well in teaching improvement. In some settings, up to 30% of the participants have dropped out by mid-course. Allowing auditor-participants and non-credit options can ease this problem somewhat.

Another motivational problem is how to cause an experienced teacher to learn new teaching techniques. This is closely related to the notion of resistance to learning. For example, colleagues from the humanities sometimes resist programmed instruction or PSI Keller Plan because they are related to Skinnerian behaviorism or at least logical positivism, which is very much out of vogue currently in intellectual circles. Likewise, the notion of instructional objectives, basic to many modern models

of instruction, is seen as odious or at best unworkable by colleagues in the humanities, in particular. While there may not be a definitive solution to this problem, certain approaches to it may be identified. For one, a seminar which enrolls participants from a variety of disciplines has a socializing effect on them. That is to say, whereas the humanist may regard instructional objectives initially as odious, he or she soon learns to see that a colleague in dentistry finds them indispensable. For the faculty member to discriminate between "acceptable for dentistry, unacceptable for history," is a step in the right direction, because at least it removes instructional objectives from the unthinkable category. The next step, of course, is in the informal socialization, where colleagues from markedly different departments come to see similarities in their instructional goals. A third step involves placing instructional objectives in a framework removed from bedrock behaviorism. This is best done through an approach similar to that taken by Norman Gronlund in the second edition of his book, Stating objectives for classroom instruction (1978). He makes the useful distinction between general objectives and specific objectives. For someone concerned with training in a skill, the instructor might be able to assemble a comprehensive set of specific objectives for every desired learning outcome of any course. At the level of education, however, a complete set of general objectives, that is, categories of outcomes, may be attainable with specific objectives bearing a one to one correspondence to test items never stated comprehensively but only as a sample of desired learning outcomes. Likewise, an instructional model such as that proposed by Feldhusen et al. (1974), which puts mastery learning approaches in perspective and, in fact, combines what Broudy has called didactics, heuristics,

and phyletics into a three-stage approach to learning, becomes more acceptable to faculty members from a cross-section of academic and professional disciplines than any single approach such as the PSI Keller Plan.

Lastly, although the course is primarily for formative purposes, certain individuals insist on using it for summative purposes, and in the final analysis, avoiding every instance of this may be impossible. That is to say, some faculty members may insist that their teaching assistants complete the course satisfactorily as part of their graduate program. Likewise, some department chairmen may insist that a given faculty member complete the course, using course completion as an indicant of teaching success. The motivational implications of these examples can be both favorable and unfavorable. Experience in B.C., however, suggests that the course is best offered to volunteers and not to those who are required to attend. One department head who completed the course reports that he did so with two motives in mind. One was to see if he could learn something to improve his own teaching; the other was to set an example for other members of his department and faculty. For whatever reasons, a higher proportion of teaching staff in that particular department has completed the course than any other department on campus.

IV. Evaluation and Institutional Problems

Elsewhere, Foster (1976) has presented a model for evaluating a course such as is described here. Table 4 contains a summary of this evaluation scheme. The logistics problems in following up participants continue to delay the completion of data from that cell of the evaluation model. An ongoing project, however, is to videotape micro-teaching sessions

of the participants at the beginning and end of the course in a situation where participants are asked to teach the same lesson to the same simulated students, namely members of the seminar. A set of similar videotapes is being obtained from a non-equivalent control group of other instructors so that a modified Flanders interaction analysis and other techniques can be applied to determine such things as explicit use of objectives, taxonomic level of questions, proportion of teacher talk to student talk, and other indices of teaching effectiveness. Hopefully these data will be available this fall.

The course at UBC regularly appears in the graduate calendar of the university. Graduate students and faculty members in other faculties, however, frequently do not read the part of the calendar devoted to education courses. Three additional forms of communication operate together with the calendar notice to generate clientele. The first is word of mouth recommendations from former seminar participants. The second is a short, discrete memo addressed to all deans and department heads once every two or three years calling their attention to the course. The third is notices in faculty newsletters or ad hoc workshop sessions concerned with teaching. These are deliberately kept at a low key to minimize the likelihood of potential participants misunderstanding the purpose of the course or believing that we had somehow discovered a "cookbook" or panacea for teaching problems.

Recently we entertained a visitor from the University of New South Wales in Sidney, Australia. This gentleman represents an instructional services unit which is one of the oldest in Australia. He was visiting centers in North America, and in particular, relatively new centers, to

learn what he could about renewing their existing program. If we are advocating that our colleagues take steps to evaluate and renew their teaching and the courses they offer, we must likewise be about the activity of evaluating and considering renewal activities for the improvement courses we offer.

It could be argued (cf. Knapper, 1972) that faculties of education are inappropriate places to develop or offer teaching improvement courses. This argument is consistent with an unfortunate stereotype of faculties of education as having little to offer in instructional development and evaluation. If this were once true, it is progressively less the case today. Modern faculties of education have staffing and facilities with much to offer and can go a long way toward eliminating this outworn stereotype. Leadership in teaching improvement can be expected from well prepared, discipline-based faculties of education today.

V. Personnel Issues

It would take a master teacher, indeed, to be able to meet all the needs for personal development, for organizational development, and for institutional development that were identified by Smith (1976) in his study of practices in the U.S. Therefore it is strongly suggested that a variety of personnel be involved in offering teaching improvement courses. At UBC the course was designed and offered by a faculty member in educational psychology who holds graduate degrees in human learning and instruction. Colleagues in other areas, however, have participated in offering parts of the course. Notably, an educational historian has frequently conducted the session on student unrest and implications for teaching in

Canadian universities. Likewise, a professor of higher education has conducted sessions on regional colleges and teaching opportunities therein. And a professor of science education has conducted sessions on educational evaluation tests and measurements. Visitors to campus and other subject matter specialists round out the team as guest speakers.

VI. Research Questions and Issues

Do we look for general main effects or interactions, or do we attempt to construct a unique instructional theory for each particular situation (Snow, 1977)? As indicated above, the search for general main effects seems too simple minded, having too many questions. The search for reliable aptitude-treatment interactions over the past twenty years has not been abundantly fruitful. Albeit, some interesting findings have emerged. For example, Daniels and Stevens (1974) report that college students who were high on internal locus of control (believed themselves to govern largely the outcomes of their efforts) achieved more than externals under student centered instruction (the contract method), whereas those who were high in external locus of control (believed that outcomes of their efforts were largely determined by others) outperformed internals under traditional teacher-centered instruction.

Smith (1977), however, found a specific main effect for indirect teaching (à la Flanders) on scores on two different critical thinking measures. Low levels of active student participation were associated with time spent in memorizing facts. Greater student participation in class was associated with high critical thinking scores. Clearly, substantial research and development are called for even as the effort to date

begins to bear fruit. If Snow (1977) is correct, we must prepare classroom teachers to design and undertake their own local research investigations to uncover the instructional theory appropriate to their particular situation.

Philosophical definitions of teaching and of good teaching are still not available in wholly satisfactory or comprehensive form. The characterizations by Broudy have given considerable impetus to understanding teaching development and research activities and are suggestive of further scholarly activity in this area. The three-stage model of Feldhusen and his coworkers (1974) at Purdue and the Cafeteria System of evaluation of instruction developed at Purdue University are currently among the most promising developments in instructional improvement available to date.

Some comments about mapping the domain of instruction and evaluation of instruction are appropriate at this time. Partly in response to student unrest, but also in reaction to increasing pressure on universities for accountability from legislatures and funding agencies, research and development in evaluating teaching has burgeoned during the 1970s. The development of instructional models and indeed the entire field of study known as instructional psychology have accompanied this boom. Early literature on the relationship between student evaluation of instruction and student achievement and other modes of instructional evaluation produce sketchy and conflicting results. Two widely cited studies cast considerable doubt on the usefulness or validity of student ratings of instruction. One of these, by Rodin and Rodin (1972), reported significant negative correlation between student ratings and student achievement. Another, entitled "The Doctor Fox Lecture," by Naftulin, Ware, and Donnelly (1973)

reported that a talented actor could receive high ratings from a sophisticated academic audience for a 40 minute lecture composed largely of gibberish communicated in an engaging fashion. If the conclusions of these studies were notable, their design and execution left much to be desired. Subsequent replications and extensions of the Rodin and Rodin study involving random assignment of studies to sections and carefully developed and reliable student questionnaires and common final examinations (Frey, 1973; Sullivan & Skanes, 1974; Centra, 1977) report significant and positive correlations between student ratings and student achievement, typically about .40 for inexperienced instructors and rising as high as .60 in the case of instructors with one or more years of teaching experience. Given the many student and background variables contributing to achievement indicated at the beginning of this paper, one might expect these correlations to be about as high as will be found in future. This route in mapping the domain of instruction is becoming well charted in the literature. Alternative routes involving peer ratings of instruction and self-evaluation (Simpson, 1966) are yet to be clearly charted.

Regarding the "Doctor Fox" effect, some points should be noted. The first is the large difference between evaluating one 40 minute entertaining lecture and evaluating university courses, where students may attend classes three hours a week over a period of 12 to 26 weeks. We know that one way to increase reliability is to increase the sample size. Numbers of teachers and of students responding as well as numbers of items on a questionnaire and number of response choices all contribute to reliability. The number of hours of lecture or the number of lectures or class sessions is also important in reliable student ratings of instruction. Clearly,

students who have attended many class sessions are in a better position to evaluate a course than those who have attended very few. Typically in educational measurement, the upward bounds of validity are determined by the square of a reliability coefficient. By its nature, the one-shot Doctor Fox study cannot yield reliable data on student evaluation of instruction and therefore must, by design, result in evidence against validity of student ratings. A further ethical issue casting doubt upon the possibility of ever performing the definitive Doctor Fox study is that it is unjust to expose students to more than one or two lectures of high expressiveness but low content, especially when students are investing time and tuition with the promise that achievement will be possible for them.

A recent monograph put out under the aegis of the CAUT (Knapper et al., 1977) contains essays and reviews on aspects of evaluation of teaching in higher education. The chapter written by Gilles Nadeau is a fairly comprehensive summary of research on this problem. The editors seem to disagree on the proper role of student evaluation of instruction in Canadian higher education today. It seems to receive approval when the object is formative evaluation, that is, the improvement of instruction. The editors, in their concluding remarks, however, go so far as to recomment a moratorium on student evaluation of instruction when used for summative purposes, that is, promotion, tenure, reappointment, and merit salary increases. They are probably guilty of throwing out the baby with the bath water on this point. First of all, student ratings of instruction are widely used and are becoming increasingly used in providing input to summative decisions, and with good reason since students see more teaching

than anyone else in society. Moreover, evidence is mounting, including studies reviewed in the CAUT monograph itself, that student ratings can be one reliable source of evidence concerning teaching quality.

In the area of evaluation of teaching for improvement, it would seem that we are again arguing over the wrong question. Whether or not student ratings should be considered is not at issue. What is important is what role they should play and how they can be obtained in a reliable, valid, and useful fashion, given that students see more instruction than anyone else in society. The problem of judging teaching has been likened to that of judging animals at a country fair. An alternative analogy is that of judging whiskey for the purpose of improving the blend. It is as if we are all in a pub waiting for it to open. We need to find out the brand of the beverage so we know what to order. A large pub mirror advertising the brand we want to test has been smashed and is lying in pieces. To determine exactly what we are about, we must put the mirror back together at least enough so that we can read the name on it. The students have one big piece of glass. One's peers (who are students too when one stops to think about it) have another shard, and self-evaluation, when specific questions are asked, can provide quite a few sharp little pieces to help fill out the picture. In dealing with evaluating teaching for improvement, we are all down on our hands and knees on the pub floor, with cut and bloodied fingers, arguing over which piece to place where in the splintered frame.

References

Broudy, H. S. Three modes of teaching and their evaluation. In W. J. Gephart, R. B. Ingle, & G. Saretsky (Eds.), The evaluation of teaching. NSPER:74, Occasional Paper 18. Bloomington, Indiana: Phi Delta Kappa, 1974.

Carroll, J. B. A model of school learning. Teachers College Record, 1963, 64, 723-733.

Centra, J. A. Effectiveness of student feedback in modifying college instruction. Journal of Educational Psychology, 1973, 65, 395-401.

Centra, J. A. Student ratings of instruction and their relationship to student learning. American Educational Research Journal, 1977, 14, 17-24.

Daniels, R. L., & Stevens, J. P. The interaction between the internal-external locus of control and two methods of college instruction. American Educational Research Journal, 1974, 11, 259-274.

Feldhusen, J., Linden, K. W., & Ames, R. Using instructional theory and educational technology in designing college courses: A three stage model. Paper presented at the International Conference on Improving University Teaching, Amherst, Massachusetts, 1974.

Foster, S. F. Evaluation of courses in training university teachers: A design and preliminary data. In A. Bonboir (Ed.), Instructional design in higher education innovations in curricula and teaching proceedings (Vol. I). Louvan-la-Neuve, Belgium: European Association for Research and Development in Higher Education, 1976.

Frey, P. W. Student ratings of teaching: Validity of several rating

factors. Science, 1973, 182, 83-85.

Gronlund, N. E. Stating objectives for classroom instruction (2nd ed.). Toronto: Collier-Macmillan Co., 1978.

Keller, F. S., & Sherman, J. G. The Keller Plan handbook. Menlo Park: W. A. Benjamin, 1974.

Knapper, C. Improving teaching effectiveness. CAUT Bulletin, 1972, 21(1), 9-11.

Knapper, C. K., Geis, G. L., Pascal, C. E., & Shore, B. M. (Eds.). If teaching is important... Toronto: Clarke, Irwin and Co. Ltd., in association with the Canadian Association of University Teachers, 1977.

Naftulin, D. H., Ware, J. E., Jr., & Donnelly, F. A. The Doctor Fox lecture: A paradigm of educational seduction. Journal of Medical Education, 1973, 48, 630-635.

Rodin, M., & Rodin, B. Student evaluation of teachers. Science. 1972, 177, 1164-1166.

Simpson, R. H. Teacher self-evaluation. New York: Macmillan, 1966.

Smith, A. B. Faculty development and evaluation in higher education. ERIC Clearinghouse Research Report. Washington, D. C.: American Association for Higher Education, 1976.

Smith, D.G. College classroom interactions and critical thinking. Journal of Educational Psychology, 1977, 69, 180-190.

Snow, R. E. Research on aptitudes: A progress report. Technical Report No. 1, Aptitude Research Project, School of Education, Stanford University, September, 1976.

Sullivan, A. M., & Skanes, G. R. Validity of student evaluation of teaching and the characteristics of successful instructors. Journal of Educational Psychology, 1974, 66, 584-590.

Table 1

Outline of Key Problems and Issues

I. Should a course be offered at all? To whom? When?
   A. Rationale for a course in teaching improvement.
      1. Theoretical issues.
      2. Practical (economic and political issues).
   B. Induction courses for new faculty (required or optional?).
   C. A course for graduate teaching assistants, all graduates, for experienced faculty?
   D. One course mixing all three groups (students, old & new staff)?
   E. Only short courses or workshops?
   F. Half year or full year courses and seminars?
   G. Individual consultations or group retreats?

II. Content and organizational problems.
   A. Emphasis upon theoretical or practical skills?
      1. Can a theoretical rational for good teaching be taught?
      2. Can teaching be improved by reading about/watching teaching?
      3. Should a course emphasize only practical skills?
      4. What projects are important/desirable/necessary for a course?
      5. Should all projects be optional (select from menu) or should some (e.g., microteaching) be required?
   B. What content should be included/emphasized?
      1. Learning theories? Instructional models?
      2. Teaching methods? Recent innovations?
      3. Evaluation techniques?
      4. Public speaking? Speech correction?
      5. Instructional technology and media?
      6. Human relations training? Professional ethics?
      7. Techniques of instructional research? Of course development?
      8. How to apply for a teaching position or a promotion?
      9. History and philosophical issues in higher education?
      10. Political/sociological issues (unionization, campus unrest)?
   C. Should all participants "take" the same content?
   D. Should focus be determined by the participants?

III. Motivational problems of (potential) participants.
   A. Those who most need the course do not take it!
      1. Should it be required? Of whom?
      2. Scheduling the course at convenient times.
   B. Up to 30% of participants drop out!
      1. Conflict with "more important" activities.
      2. Participants all want the highest marks in teaching.
   C. Should credit be given?
      1. Graduate students want course on their official record.
   D. How to enable an experienced teacher to learn new techniques?
      1. Is it sufficient to improve existing skills?
      2. How to deal with resistance to learning certain topics?

IV. Evaluation and institutional problems.
   A. How and for what purposes can the course be evaluated?
      1. Sources of data for course improvement?
      2. When is it time to radically change the course?

B. Should the course be offered in each faculty? In (or not in) the Education Faculty?
C. How should the course be described or "advertised?"
D. How to deal with "acceptance" problems across campus?

V. Research questions and issues.
A. Philosophical definitions of teaching and good teaching.
B. Operationalization of definitions of teaching and good teaching.
1. Measures of teaching effectiveness.
2. Measures of learning and transfer.
C. Towards a psychological (or social psychological) theory of instruction.
1. Integrating existing models and fragments (Ausubel, Bruner, Gagne, D. Hunt, J. Feldhusen's 3 stage model).
2. Mapping the domain of instruction.

Table 2

Activity "Menu" for Improving College and University Teaching

1. Select and/or prepare a pool of general and specific instructional objectives which are stated in terms of student learning outcomes for a course you (will) teach. Cast these into a table of specifications showing topic of instruction along one axis and type of learning outcome (e.g. factual, conceptual, application, etc.) along the other. Evaluate objectives according to criteria as suggested by Gronlund (1978) or Mager (1975), and revise as necessary. Use some of these objectives where appropriate for No. 3, 4, or 6 below.

2. Collate and critically evaluate (using the instructional models discussed in the seminar, e.g. Ausubel, Hunt, Gagné or Feldhusen), the instructional materials available for a course you (will) teach. Develop some of your own materials (or modify existing ones) to remedy any particular weakness or gap you may find. Use any of these as appropriate in No. 3 below).

** 3. Prepare and present one 20 minute instructional segment to the seminar. This may be videotaped for later playback and for your own evaluation. Evaluate, revise and present the segment again, or prepare and present a second segment as above. Participants currently teaching may substitute on-the-spot video-taping of one or more of their class sessions for <u>one</u> of these presentations where appropriate and feasible. Participants should carefully consider and choose one or more teaching modes best suited to their own and their students' styles and requirements of the subject matter. Briefer components from other projects on this page may be included as appropriate.

4. Develop a course syllabus for instructor and/or student use, including as deemed necessary an annotated bibliography, lists of readings, handouts, student projects, schedules of quizzes and exams. Evaluate the scope and sequence of topics/activities using one of the instructional models discussed in the seminar, and revise as indicated. Use segments as needed from other projects (e.g. 1, 2) on this page.

5. Prepare a set of instructional aids (transparencies, tapes, etc.) pertinent to your (intended) teaching. Critically evaluate these (and others which may be locally or commercially available) and revise as necessary. Demonstrate a selection of those to the seminar (possibly in conjunction with No. 3 above) as appropriate.

6. Develop a pool of test items using a variety of formats (objectively scored, subjectively scored, and situational problems) for evaluation of student learning (both formative and summative) in your teaching area. Cast these into a table of specifications (as in No. 1 above). Evaluate these according to standard item writing criteria (e.g. Gronlund, 1968) and revise where necessary. Where possible collect data using these items in your teaching, perhaps in connection with No. 3 above, and apply standard item analysis procedures to the data. (Consider pretest-posttest or posttest only use with No. 3 above).

7. Develop a pool of items/procedures for instructional evaluation, and organize these (cf. Centra, 1972; McKeachie, 1978; or Simpson, 1967). Use samples from this pool as appropriate to your teaching (also in No. 3 above) and revise as necessary, based upon conceptual and item analysis procedures.

8. Design and execute (at least in pilot study form) an investigation into a problem in human learning and instruction. The proposal and final writeup should follow an accepted format for educational research, and the literature review, procedures, analyses and conclusions should be included. If possible, present the proposal or the finished project to seminar participants in written form.

9. Critically evaluate the research literature on teaching learning problem having relevance to your teaching.

10. Suggest and conduct another project designed to improve your teaching This may be some combination of elements 1-8 above, such as the development of a new course or program, or it may be some new activity of your own creation.

** All regularly enrolled participants should complete at least three activities from the above list, with No. 3 required of all. Each activity will be evaluated by the instructor and by the other seminar participants. All auditors or visitors are expected to deliver at least one presentation as in No.3.

Table 3

EDUCATION 506
COLLEGE AND UNIVERSITY TEACHING

Outline of Content

Instructor: Stephen F. Foster, Ph.D.
Hut 01 Room 1, Ph.# 228-2000

Educ. 506
Scarfe Room 210
Tue. 4:30-7:00 p.m.

This course is designed to provide teachers and prospective teachers with means and opportunities to develop their instructional plans and skills. Participants registered for graduate credit will complete 3 projects from a list of alternatives. Auditors and visitors are expected to complete at least one.

I. Developing course objectives for college classes - Uses of the taxonomies of educational objectives:

   a. Cognitive behavior: concept formation and problem solving.
   b. Affective behavior: attitudes, interests, and values.
   c. Psychomotor behavior: motor skill learning.

II. Psychological considerations in developing course content:

   a. Psychological criteria for selecting and organizing content and locating sources.
   b. Organizing topics into sequences, relevant psychological research.
   c. Recent theory and research in factors involved in the learning of meaningful prose material.
   d. Learning - Motivation models: learning hierarchies.

III. Developing teaching-learning situations:

   a. Organizing and presenting courses - principles and techniques:
      1. lectures
      2. discussion methods, learning in groups, seminar formats
      3. films, television, and other media
      4. computer assisted and programmed instruction
      5. independent study, individual projects, and tutorial techniques
      6. laboratory techniques
      7. field training experiences
   b. Open university and "university without walls" developments.

IV. Improving college teaching through measurement and evaluation of student attainment of course objectives and through the evaluation of teaching:

   a. Measurement of classroom learning.
   b. Determining course grades.
   c. Evaluating and improving teaching behavior.
   d. Innovations in evaluation: contract grading, pass-fail, other systems.
   e. Use of video tape feedback for teaching evaluation - micro teaching.

V. Research problems in teacher-student relationships:

   a. Design and execution of research on teaching.
   b. Aptitude-treatment interactions.

Texts: Gronlund, N. E. Stating objectives for classroom instruction (2nd ed.). New York: Macmillan, 1978.

McKeachie, W. J. Teaching tips: A guidebook for the beginning college teacher (7th ed.). Lexington, Mass.: D. C. Heath & Co., 1978.

Table 4

Components of a Model for Evaluation of

a Teaching Improvement Course

Sources and types of data: (A, B, A, & D = "experimental" groups; A', B', C' & D' = control)			
A. Instructor(s) 1. Self-evaluations 2. Evaluation of the projects and participation of B. 3. Evaluations of participants' video tapes	B. Participants *1. Self-evaluations 2. Peer evaluations of projects. 3. Course evaluation - attitudes and suggested changes 4. Willingness to take part in more teaching improvement activities.**	C. Bs' students 1. Achievement 2. Course evaluation 3. Exiting interviews	D. Other sources 1. Peer evaluations 2. Teaching awards*** 3. Administrative ratings 4. Extra mural references on the quality of teaching
A' 1. Evaluations of would-be-participants' teaching on video tape	B'."Would-be participants *1. Self-evaluations 2. Willingness to take part (as above)	C'.B's' students 1. Achievement (as above) 2. Course evaluation (as above)	D'. Other sources 1. Peers 2. Awards for teaching

* B 1. = B' 1. comparison of self evaluation data from "experimental" and non-equivalent control groups are reported elsewhere in this paper.

** Two faculty members completed the course and preceeded to reenroll and complete it a second time. Others report post-course activities which indicate continuing course and teaching improvement activity.

*** One graduate student completed the course and was awarded "graduate teaching assistant of the year" prize by his department.